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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/820,864

04/09/2004

Diwakar Garg

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12/02/2008

AIR PRODUCTS AND CHEMICALS, INC.
PATENT DEPARTMENT
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EXAMINER

CHEN, BRET P

ART UNIT

PAPER NUMBER

1792

MAIL DATE

DELIVERY MODE

12/02/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

The Amendment after Final dated 10/20/08 has been entered. The properly filed Terminal Disclaimer filed 10/20/08 has obviated the obviousness double patenting rejection. As a result, claims 46, 49, 51-54, 56-57, and 61-64 are allowed.

Independent claim 55 remains rejected and dependent claims 58-60 are objected to as being dependent on rejected claim 55.

Applicant argues that Pyo teaches of placing the copper layer upon the chemical enhanced layer as opposed to directly on the surface of the diffusion barrier layer as required in the applicant's claim (p.7 lines 5-10).

The examiner disagrees. It is first noted that independent claim 55 only requires "forming the copper film on at least a portion of the surface". It does not require that the diffusion barrier layer must be formed "directly" on the diffusion barrier layer. Hence, the applicant's arguments are not commensurate in scope with the applicant's claims. Furthermore, the present language is broad enough to read on the use of an intermediate layer which Pyo admittedly teaches. If the applicant were to amend the claims to require "directly on", this rejection would be withdrawn. However, it does raise new issues and would not be entered.

Applicant next argues that Pyo does not teach an exposure step prior to the forming step ((p.7 lines 10-17).

The examiner disagrees. Claim 55 requires a substrate, diffusion barrier, exposure step, and a copper film. Fig 1C of Pyo discloses a substrate 11, diffusion barrier 15, exposure step while Fig 1E shows forming a copper film 18 (col.2 line 37 – col.3 line 41). It is the examiner's position that Pyo indeed meets the limitation of claim 55.

Applicant's arguments have been considered but are not deemed persuasive.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bret Chen whose telephone number is (571)272-1417. The examiner can normally be reached on 7:30am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Bret Chen/

Primary Examiner, Art Unit 1792

11/26/08